

# **Plaintiffs' Exhibit 53**

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**Jedi and Evolution of HB****Discussion Format:**

15 mins breakout team discussions  
5 mins Team Exchanges presentation  
5 mins Team Amazon/FB presentation  
5 mins team Google presentation

**Teams**

<b>Team Exchanges</b>	<b>Team Amazon/FB</b>	<b>Team Google</b>
Edwin Wright	Chris Maxcy	Amir Kaspi
James McSweeney	Dave Hall	Brian Lam
Jennifer Park	Erica Lucia	Clarissa Bukhan
Jeremy Machi	Megan Towe	Isabella Convertini
Kay Kim	Nicole Gavel	Jason Grout
Matt Shapiro	Ryan Watson	Sarah Latif
Rishita Patel	Shishir Jayant	

**Discussion questions for each team:**

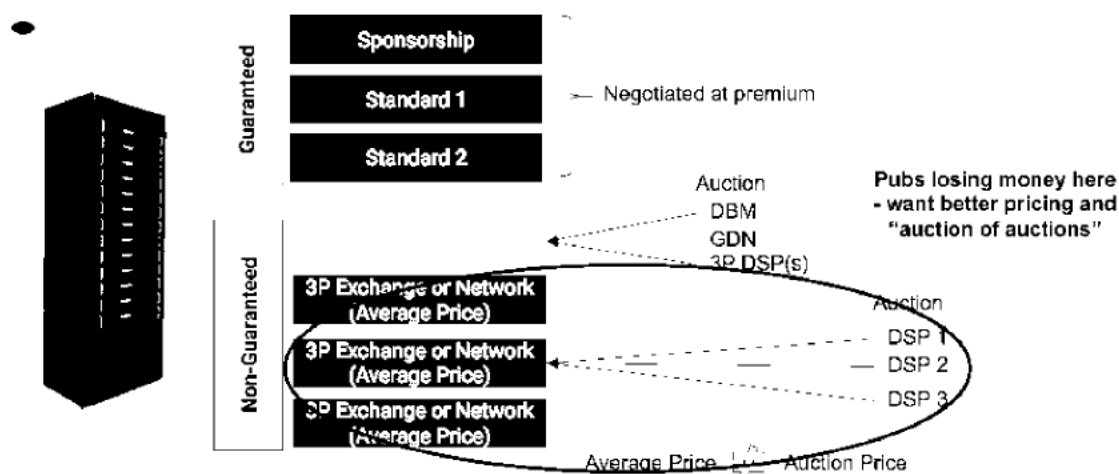
- What are your key objectives? How do you think you can achieve those objectives?
- What do you think of Google's Exchange Bidding offering, and why?
- What's a Possible "end game" here for you?

**Context:**

**Evolution of Header-bidding:** Let's look at a basic Ad Serving 101 set-up in **Google's DFP:**

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## Jedi and Evolution of HB



- Publishers set some inventory aside as "Guaranteed deals" booked directly with specific advertisers through their own sales teams.

The rest of the inventory is sold as "Remnant" or non-guaranteed inventory that can either clear

- through real-time bidding in Google's AdX, or
- through other 3rd party exchanges or networks (such as Rubicon, AppNexus, Amazon, Facebook's FAN, etc.), **but they not in real time** and instead based on STATIC historical average prices

## BO SUGGESTION

The rest of the inventory is sold as "Remnant" or non-guaranteed inventory that clears through an auction between a **real-time bid** from Google's AdX and a **STATIC** historical average bid from every other 3p exchange or network participating.

- If won by Google AdX, the real-time bid is the winning price
- If won by a 3p exchange, an additional real-time auction is run to determine winning price

In this case, Google's AdX demand gets special treatment in that it competes with all the other line items (exchanges and network's demands) based on a real time bid, while the other 'blue' non-guaranteed line items are priced based on historic averages, even though they run their own unique auctions, often with many of the same buyers.

The challenge with this set up is that it is impossible for a pub to ensure they were getting the best price as there was no 'auction of auctions' across multiple exchanges. So recently, the ecosystem (non-Google exchanges and Networks) has created a sub-par end around called Header Bidding.

With Header Bidding 3P exchanges and networks and in-turn buyers get an equal look at inventory and 'bid' outside DFP. That bid get's passed into DFP after the fact, in a set-up that often requires thousands of line-items in DFP. Header Bidding puts the maximum number of bidders in to the same auction thereby increasing CPMs 20-30%. However, this auction takes place within the header causing latency issues. This might sound rational (it is), but it is wrought with issues, like increased latency, but

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~~Publishers are able to get 20 to 30% higher prices overall.~~

**Google's position:**

Google doesn't believe HB is good for advertisers or publishers in the long run. And if it continues to grow as an acceptable protocol, it will put pressure on AdX revenue in a meaningful way.

But what is clear is that DFP wasn't able to address the market need, and is looking to fix that by developing "Exchange Bidding (Project Jedi)" and giving publishers the ability to compare prices from multiple exchanges in real time on a per query basis....the 'exchange of exchanges' they are looking for.

Google launched Exchange Bidding pilot back in April and have since been expanding to include more exchanges, formats (video, mobile, native) and publishers. [see Jonathan Bellack fireside chat video @ Prog IO in October]. One of the objectives for Google was to make Jedi *just a little better than* the HB. Google is looking to avoid channel conflict between AdX (20% rev-share) vs Jedi (5% rev share) and only allows exchanges' DSP demand to participate in Jedi.

	<b>Waterfall</b>	<b>Header Bidding</b>	<b>Demand Syndication</b>	<b>AdX Buyside</b>
<b>Yield</b>	average pricing	per-imp price signal	RTB	RTB
<b>Latency</b>	multiple passbacks	wait for <head> bids	least latency	least latency
<b>Buyer setup</b>	complex waterfall	page header setup	easy opt-in	automatically eligible
<b>Billing / reporting</b>	varies, not unified	varies, not unified	best in class	best in class
<b>Pub controls</b>	varies, not unified	varies, not unified	varies, not unified	best in class
<b>Rev share</b>	0% + exchange fees	0% + exchange fees	5% + exchange fees	20%
<b>Policy enforced</b>	platform policies	platform policies	platform policies	AdX policies

**Exchanges' Position:** Several of the exchanges (Rubicon, AppNexus, OpenX, etc) have been building their own Header bidding technology. They see that as a better way to get access to the inventory, avoid waterfall and control auction dynamics as they compete with AdX and each other. Most of them also are a buyer on AdX (as AdX gets access to all the inventory) and AdX makes 20% margin on those transactions. At the same time, current HB implementation has challenges (client-side, adds latency, thousands of line-items in DFP, etc.) so if the publishers like Google's new Exchange Bidding solution, pubs could push back on HB setups. Google's current Exchange Bidding policy only allows exchanges to buy for DSP demand and doesn't allow their own demand (sold via it's own sales team to an advertiser). Exchanges have 5 options:

1. Sit in DFP's waterfall, don't compete in real-time and thus see limited impressions
2. Buy through AdX to compete in real-time and let Google make 20% from Pubs (Google doesn't charge exchanges any fee) [ but pay 20% ]
3. Participate in Exchange Bidding, compete in real-time w/ only non-exchange owned DSP demand and let Google make 5% from Pubs (Google doesn't charge exchanges any fee) [pay 5%]
4. Build a Header Bidder/wrapper and risk publisher relationships due to latency issues (real-time, no fee)

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5. Build own AdServer separate from DFP

**Amazon/Facebook's (those who have unique demand) Position:**

Publishers want access to unique and high CPM demand and would be willing to do non-standard setups to get access to those in the short run. Amazon and Facebook have differentiated demand via Amazon's Ad network and Facebook's FAN.

**Amazon:** Amazon has access to differentiated demand via Amazon's eCommerce Ad network. They already have their tags on most of the pages (they are one of the top HB networks) which they currently primarily use to run their own eCommerce ads. Amazon is launching a solution similar to Google's Exchange Bidding (3p Exchange bidding in above pic) starting with 1c serving fee, no revshare, direct billing & no rules, for other buyers (DSPs, exchanges and agencies) outside of their own Ad Network. Amazon also owns cloud and could add analytics and other capabilities in future to monetize this further.

**Facebook:**

As Ad loads saturate on it's O&O, Facebook is looking to access more inventory outside of it's platform. It wants to bring advertiser demand from the Facebook Audience Network to the world's largest publishers by integrating itself within a header bidding wrapper so that they can avoid paying rev-share to Google or other exchanges (20%+). Also, it's unclear if Google would give access to AdX or Jedi without asking something else in return.